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THE CANADIAN CENSUS OF 1871.

*Remarks on Mr. Harvey's Paper published in the
February Number of "The Canadian Monthly."*

An able statist, Mr. Block, has said, "a statistic established with no other pre-occupation than truth is not the statistic having the best chance to escape attacks." The officials engaged in the statistical work of the Canadian Census of 1871 have now had abundant opportunities of experiencing the exactness of Mr. Block's honest, but rather humiliating reflexion.

Mr. Harvey, whom I am now answering, cannot take amiss that his strictures are examined and that, in doing so, a few of the many misapprehensions and errors which compose the elements of all the attacks made on the Census are exposed. Long before the Census was taken and even before the system was adopted, some newspapers had predicted that all would be wrong and the result incorrect. This arose from the inner conviction that imaginary anticipated figures, which had found credit in the public mind and which had been made the basis of many arguments and expectations, would vanish before the evidence of the real facts. These wild expectations had been raised to such an extent that the probable population of the Dominion for 1870 was set down, by some, at the precise number of 4,707,751, which estimate, nevertheless, was declared by others to be "rather below than above the actual figures." Mr. Harvey's own figures of the expected population amounted to about four million and a quarter, for the four provinces.

It was painful for the prophets and their believers to be struck by the fact that the brilliant anticipations of an extraor-

inary increase of population, which have crowded newspapers, reviews and almanacs for several years, were not realized; in the same way that it is painful for an over sanguine business man to become acquainted with the fact that his speculations have not turned so profitable as he expected. Nevertheless, it is of paramount importance for the country, as it is for the merchant, to know the truth as it is, and it would be dangerous for both to allow themselves to be deluded on points of such vital importance.

The same deception had partly overtaken the people of the United States who were promised, by charming calculations, a population of 45,000,000 and even 50,000,000, and great also was the disappointment at the announcement given by the last United States Census that the population was not quite 39,000,000. Fortunately for our neighbors, they have had the good disposition to accept with dignity the unwelcome truth. In answering the ably written and no doubt popular article of Mr. Harvey, I have, therefore, the unpopular side of the question; but, as I am certain that I am, at the same time, on the side of verity, I will, come what may, uphold it in as few words as I am able, the length of which, however, will have to bear the increase of necessary quotations from the paper of my learned adversary.

Mr. Harvey begins his criticism of the Census of 1871 by the following words:—

"The Census of 1861 gave to Upper and Lower Canada, New Brunswick, and Nova Scotia, about three million souls, and if these Provinces

"had continued to increase until 1871, as fast as they were said to have done for the ten preceding years, they would now have numbered four millions and a quarter, instead of under three millions and a half. The difference between the anticipated figures and the actual statement is grave and the public are as steadily denying the accuracy of the recent census, as the officials are upholding it. It does not follow from the fact that the general expectation has been disappointed, that the officials are mistaken."

I answer, that the ascertaining of the population of a country is not a question of anticipation, expectation, induction, comparison or of geometrical progression, but one of evidence, to be obtained *de visu* and *in situ* by sworn witnesses, from house to house, every individual being recorded one by one, *by name*, and in no other way. It is not a matter of argument, but essentially of fact.

The rate of increase of one period, in a young country yet undergoing the process of colonization and traversed by migratory currents, is no criterion whatever of the rate of increase of the next period. The population of Upper Canada was 465,357 in 1841, (end of that year) as ascertained by the census of that year; it was 952,004 in 1851, (end of the year); and 1,396,091 in 1861, (end of 1860) showing a total increase of 104 per cent for one decenniad, and 46.00 for the period next following; But as the second period was made, in reality, only of nine years, the correct statement is to say that the annual increase was at the rate of 7.42 during the first, and 4.34 during the second period.

This example shows the fallacy of calculations based on a mere regular geometrical progression, made to anticipate the knowledge of a fact which still lies under the veil of futurity, and of which the multifarious influencing causes, such as the action of density, of migrations, &c., &c., are quite in rebellion to the laws of mathematics.

Therefore, 'between the anticipated figures and the actual statement,' there is simply the difference that exists between fallacious calculations and an ascertained numerical fact.

Mr. Harvey a little further on says:

"The Census of 1861 was taken in one day; and the *de facto* population, that is, the population actually there, was assigned to each house, village, county, city."

This is what is asserted and copied and made an argument of, sufficient (however irrelevant to any reasoning) to delude the prejudiced portion of the public; but what are the facts? The Census of 1861 was not taken in one day, nor in two weeks, but although much less extensive, took as many weeks to complete as the Census of 1871. It was not taken under either of the two systems (the *de jure* or the *de facto*);

but without system, and made to include both the *present* and *absent* of every family; thereby making a double entry of all the fluctuating population, travellers, school-ars, inmates of public institutions, lumbermen in the forest, &c., &c., who were all counted twice, first where found and second with their families at home, all that in addition to foreigners happening to be, for the time being, present at some place in the country.

That the Census of 1861 gives a somewhat exaggerated figure is a fact that never was doubted by those who have had opportunities of studying the proceedings of that Census, for the simple reason that the proof of the double entries exists on the very face of the schedules and in no concealed form. The same proportionate exaggeration, by making use of precisely the same proceeding, was made in the Census of 1851. It follows that the enormous increase, heretofore signalized for the period 1841-51 (although widely differing from the next following) contains an important error, and that the falling off in the ratio of increase for the decenniad 1861-71 (although in reality very large) is not, by a notable figure, so large as is made apparent by comparing the returns of the two last censuses.

Mr. Harvey enters into a rather over-philosophical examination of the systems of Census taking, in which the system *de jure* is represented as a sequence of the "Roman jurisprudence... which mystifies the unwary litigant," and the system *de facto* as following the "Common Law" ideas and whatever is most practical; of all of which Mr. Harvey concludes that the system *de jure* is "cognate" to the Latin peoples and "foreign" to the Teuton. I shall not enter into any discussion of such transcendental nature, being rather inclined to restrict myself to facts and to arguments derived therefrom. The facts are, that there is no discrimination as to the races which have adopted one of the two above mentioned systems. There are Latin peoples who have preserved the traditional system *de jure*, and there are Latin peoples who have adopted the comparatively recent system of *de facto*, and so it is with the Teutonic races. Two examples will suffice to show the error into which Mr. Harvey has fallen, just in consequence of relying entirely on the use and the abuse of the method of induction in relation to pure matters of fact. The largest Latin agglomeration, France has, for some time, adopted the system *de facto* for the quinquennial enumeration of her people. The largest English speaking agglomeration, both in point of population

and territory, the United States are making use of the system *de jure*; in this respect their manual of instructions for their Census of 1870 is similar to our own manual of 1871.

I hope that, henceforward, Mr. Harvey will become convinced that the adoption of the *de jure* system, in Canada, is not due to the fact that Mr. Dunkin is a "Quebec lawyer learned in the roman jurisprudence" and Mr. Tache "a French Canadian *pur sang*."

Mr. Harvey elsewhere says:

"Most of the checks, however, which have been applied, have shewn the Census figures to be an under statement, as indeed from the nature of the *de jure* principle applied by untrained men, they are pretty sure to be."

Without attaching more importance to these so called checks, which are very much inferior, in character and reliability, to a regular census, such as they are, they have been the reverse of what Mr. Harvey asserts them to have been. The municipal enumerations of Ontario (there are none in the other Provinces) taken few weeks before the census day, show less numbers of population, and in most cases considerably so. Amongst the many of which I have myself compared the figures, there is only one exception, and only amounting to a trifling difference of less than one per cent in a small locality.

I have so far heard of only two enumerations taken, since the publication of the census figures; and this under preconceived ideas and with the avowed purpose of showing the Census at fault. In Ontario the town of St. Mary's has had one taken, which is a confirmation of the Census, inasmuch as the Census gave to that locality 3120 souls, and the *special enumeration* 3178, nine months after date. In Quebec, the frontier town of St. Johns has had an enumeration, taken without names or any other means of control which has given a population several hundreds in excess of the Census, out of 3022 inhabitants, a clear indication that the check was rather overdone. This case falls under the application of the maxim of universal wisdom, which says: "Who proves too much proves nothing."

I repeat that there is no guarantee whatever in such check enumerations, taken by agents not legally responsible, under sectional influences, at work, amongst a population, at the time actuated by an intense spirit of locality and almost pledged to procure a higher figure than the Census. It is plain that to obtain a correct enumeration in such circumstances is a chance not to be expected once in many times: checks of that sort are to be received not with a grain but

with a bushel of salt. It would be indeed a remarkable staff of municipal officers, and a remarkable community that would, in America specially, keep its equanimity of mind and delicacy of conscience under such a pressure, in the absence of the necessary precautions appertaining to this kind of work. Apart from all that, an enumeration made without writing in the name of every person is admitted to be, by all authorities, under all circumstances, a questionable piece of statistics, as it allows of little or no control and opens the door to all sorts of errors.

Mr. Harvey, elsewhere, says:

"Nova Scotia has had a registration system in operation for some years, more or less efficient, and the gentleman who has had charge of it has been attached to the Census Staff. Hence, that Province has, in all likelihood, the most complete enumeration, and consequently gains, The other Provinces have not had this great advantage."

This is certainly an ingenious theoretical explanation of the higher ratio of increase reported for Nova Scotia; but the facts, the unyielding facts, unfortunately again set their stubborn argument against the conclusions arrived at. The registration system in Nova Scotia, with the exception of what concerns the city of Halifax, is still in its infancy, and has not yet, and could not have, despite the efforts of the zealous official who is at the head of the Statistical Office there, reached a point even approaching approximation; while the Province of Quebec, where the ratio of increase has been the smallest of the four, has, for the eleven-twelfths of its population, as perfect a system of registration as the very best in Europe, and that from the very beginning of its colonization; so much so that the ancestry of the poorest Catholic laborer in Quebec, can be traced to the first of his name who immigrated to Canada.

Besides, the registration of births, marriages and deaths is a thing quite separate and distinct, in every particular, from the process of taking a census.

The registration office, when organized, as it is in England, for instance, may render the preliminary labor of preparing, and the ultimate labor of compiling the returns more easy to the head office, by making use of an already trained numerous *personnel* of registrars, deputy registrars, and registration clerks, which, however, has not been the case in Nova Scotia.

The fact of the matter is that the census of Nova Scotia is neither better nor worse than the census of the other Provinces; the same system was applied to all, the same precautions taken, the

personnel chosen in the same manner. The preliminary instruction, both by books and oral teaching, imparted in the same way, and the same processes of verification resorted to. For those who are acquainted with the proceedings of the last census, the supposition I am refuting and the conclusion derived therefrom are simply ludicrous.

Mr. Harvey a little further, when attacking the *de jure* system, says:

"In this connection we should consider that:—
 "the *de jure* system works injustice anywhere it is in the towns and cities. The travellers staying at hotels, the young lads at schools and boarding houses, the servants in families—all these are referred to their homes, which are chiefly in the country, while foreigners passing through the Dominion who are not enumerated at all, are almost altogether in cities and towns."

Speaking of injustice, because the travellers and foreigners are not added in, as part of any population, to which they are of course perfect strangers, is rather a serious misapprehension of the idea of right.

What is the object of an enumeration of the population of a country? Is it the mere childish vain desire of crowding the largest possible figures on paper? Is it not, on the contrary, for the honest and reasonable purpose of knowing the real strength, or the weakness of the agglomeration and of every portion thereof; of knowing the relative proportion of sexes, ages, &c., &c.; is it not to ascertain what are the elements of vigor or of feebleness, and where, and how they are in existence, in order to divulge the causes and suggest future invigorating or curative action? If, to the real population of a frontier town were added (as a local operation has done) the few hundreds, travellers, strangers and foreigners, who gather there, will it be a greater producer or consumer, or a greater bulwark against invasion? Might it not, on the contrary, mislead the administration and induce the country to calculate upon a fictitious strength, and to count as contributors to the resources of the country or as defenders of the soil, a number of men actually arrayed against its interests or peace; men, whose first movement, on an emergency, would be to return to their legitimate quarters?

When the *de facto* system is *bona fide* put into practice, the difference as a whole, in the result is quite insignificant one way or the other. Where adopted it is not because it is apt to show a larger figure (an argument which no statistician would venture offering) but because it is argued that it simplifies the proceedings and that the omission of the number of the temporary absent is made up by the temporary present be-

ing counted, or in the words of the Registrar General of England: "*Foreigners are a set off against the number of Englishmen abroad.*" Therefore, such statisticians as are longing for a system to increase the figures and make them look more respectable must lay aside the *de facto* as well as the *de jure*, to take up the superb system of 1851 and 1861 of counting both hands and both ways, which system, however well imagined for the purpose, is yet quite inadequate to reach the "*anticipated figures.*"

The mere fact that a Census has been taken under one or other of the two systems cannot be argued against the correctness of the result. The two systems have their advocates, and are both practiced; neither of them is a dogma of salvation; neither of them the abomination of sin. One may be better adapted than the other to given circumstances. The *de jure* system has been resorted to, both by the United States and the Canadian authorities, as being the better in view of the circumstances of special difficulties of organization, of the immense extent of territories and of federal political institutions. It has the immense advantage that it does not necessitate the very great haste which is a natural sequence of the adoption of the *de facto* system.

In connection with this, it is well, however, to remark that an idea, which has been prevalent and urged as a kind of by-word of criticism, is that the census of a large community, as of a vast extent of country, can be done in one day, and its results published within a week. It is, however, quite erroneous. But even if such expedition were possible, it would be of no decided advantage, in ordinary circumstances, and certainly no panacea against errors. Mr. Harvey himself gives a very good reason why, we in Canada, should not sacrifice to the impatient desire of being very fast, when he says, speaking of the difficulties existing in statistical enquiries and census taking in America: "*Duties which of all others require most training and most special study, are thus of necessity placed in the hands of unskilled, untrained and hastily appointed persons.*" Is it not then plain that to adopt a system which necessitates ten times as many officers and enumerators, and which requires the most haste, would be adding to the difficulties and chances of errors to a very great extent, if not in a proportionate ratio?

There has been a falling off in the ratio of increase of our population during the last decenniad, and although the extent of it could not have been surmised before the actual taking of the census, still, men who had spent some time in analysing the

movements of our population were prepared for a result which has taken by entire surprise a large portion of our public, laboring under the delusions of the anticipated figures.

The statement of the facts revealed by the census is easily sustained by the argument derived from notorious concomitant events. With the exception of the three last seasons (only two appertaining to the last decenniad) the immigration permanently settling in the country has been, for many years past, comparatively a mere nothing, at the same time that a considerable emigration was going out from all parts of our four Provinces, but more especially from the Province of Quebec. That emigration towards the United States, already begun during the previous decades, has been intensified during the last one. An immense vacuum in the labor market had been created, during that period, in the midst of the able bodied male population of the neighbouring Republic, by several years of a fierce civil war, and the coincident fact of the abolition of compulsory slave labour. The call to fill up came under the double form of plenty to do and high wages. Our comparatively small population furnished, as could not be otherwise expected, a large part of the filling, thereby causing an absolute diminution of the population, and a proportionate diminution in the ratio of increase of our people. To remain blind to the light of such a plain explanation of the results ascertained, supported by such a broad notorious fact, would certainly indicate a very unhealthy state of the public mind.

The reflecting mind of Mr. Harvey, not withstanding that he impugns the accuracy of the census on mere suppositions, is in spite of himself drawn to deal with the fact of a diminution in the rate of increase of our population:—for those who are accustomed to analyse the human mind and the association of ideas, it is a decisive proof that Mr. Harvey is, in reality, and at the bottom of his soul, more convinced of the accuracy of the census than he has made himself aware of. He says:

"there seems to be a point at which population in the old counties stops, and it is probably reached when there are as many people farming the land as can profitably do so by their own labour, and without employing capital in under-draining, sub-soil ploughing, or artificial manures. In the present state of the continent, with new lands within easy reach, it possibly pays the farmer better to send his sons away to seek them than to strive to increase his crops by applying science and capital to the old farm. That it does so has evidently become the prevailing belief."

There is no doubt a great weight, a very great weight, in the ably stated remarks above quoted; but,—the conclusion which logically follows these premises, is that a diminution in the ratio of increase of our population becomes a matter of course, to an extent commensurate with this cause added to the other forces at work in creating and maintaining the existing current of emigration.

Further, Mr. Harvey says:—

"Have the farming lands been too much subdivided?—and is a clearing out process commencing naturally, like that which was carried out forcibly in the Scottish Highlands, where in order to get the best returns, the landlords made the cotters leave their small farms and seek new ones in another country? If it has—and if the limit of population has been reached, that can be by the system of farming in vogue in Quebec and Ontario be well supported, it is quite clear whither the surplus population of both Provinces must flow. It will go northward only by degrees, though when it does pass the Laurentian ridges, and get established on the clay soils north of them, it may fill up another tier of counties yet. It will keep, if not on the same parallel of latitude as near to it as possible; emigration movements always do. It will keep on the zone of similar vegetation. It may, for aught we know, have already largely swelled the population of Minnesota, Wisconsin and part of Michigan. Some of it may have been seduced to Illinois and Iowa, but the Canadian seldom stays there long. It will, if facilities are provided, rather remain under the old institutions, and we shall find that when a railway is constructed it will seek the North Western Territories—and probably get as far westward as it can on the Assiniboine and the south Saskatchewan to escape the extreme cold of the Red River Country."

Again these reflections and devices, to counteract or make up for a deficiency (which was not made an element of the anticipated figures, but which the actual enumeration was sure to meet), go to the whole length of supporting the accuracy of the Census.

Without dwelling on the aphorisms of Emigration propounded in the above quoted paragraph which assumes that Emigration "will not go southward, that it will keep if not on the same parallel of latitude, as near to it as possible, that it will rather remain under the old institutions." I cannot avoid expressing my firm belief in the facts that migratory currents will often times go southward, that they will go to some distance and even far away from any given parallel of latitude and to very different institutions.

Mr. Harvey concludes one part of his remarks by the following reflection:

"Without a steady influx from Europe or Asia, are we like the old temple and mound builders, our predecessors on this continent, doomed to ultimate extinction?"

Evidently this is taking a more gloomy aspect of things than necessary. Even at the rate of an annual increase of one per cent, there is no threatening of annihilation: it is about the rate of increase of

England and Wales, where the Immigration from Ireland has been, for many years past, greater than the Emigration from England; so much so that there are now more Irishmen in London than in Dublin. There are other circumstances also of a consoling nature: the Emigration to the United States seems to have passed its climax and a reaction is now taking place and will probably continue as long as the rate of wages finds its ordinary level and the emigrating mania is curing itself. The fecundity of our families, on the whole, is not impaired and the European Emigration, for the last three years, seems to take a more favorable view of the advantages offered by our country, in all its parts, for immigrants. Therefore, let us not be despondent, but let us at the same time avoid being deluded. We cannot be in a moment as big as some of our over sanguine fellow subjects were expecting, but let us try to be naturally as big as we can safely be.

Mr. Harvey, after having opposed suppositions to the Census, says:

"If five per cent. of the population of Quebec has been omitted, and eight of that of New Brunswick and Ontario, the additional three hundred thousand, which it is thought a correct enumeration would allot to us, would make this total more respectable."

Let it not be lost sight of that no earthly being can have any knowledge of those supposed errors of the Census, which are purely drawn from imagination, for the simple reason that no philosopher can have any intuitive idea of such a thing, that no statistic has any means of discovering it by induction, that no mathematician can put it to any possible test of calculation. The facts are, 1st, that the Census is the legal, legitimate enquiry, performed under an approved and tried system by the constituted authority, with the help of 12 supervising officers, 206 directing and revising commissioners, and nearly 3,000 enumerators, all educated beforehand for that purpose, all sworn at the beginning and the end of their work, and each one acting for the section of country best known to him, in which he is interested and for which his affection is most intense; 2nd, that the returns, in the whole, show an increase of about 1.00 annually; 3rd, that the Province of Quebec is the only one of the four enumerated whose increase is reported to have fallen below the average of 1.00; 4th, that the bulk of the population of that Province of Quebec is renowned for its extraordinary fecundity, which Mr. Harvey himself picturesquely acknowledges in the following words:—
"Almost every house looks like a rabbit warren for young."

The logical, the natural conclusions would therefore be that the Census is as correct as any operation of the kind, under the circumstances of the country, can reasonably be expected to be, and that, if there had been errors of omission, the Province of Quebec is that in which they would most likely have taken place.

The contrary conclusions, upon such record, seem to me very much like the sentence of a certain magistrate, who is said to have decided a case as follows:—"The evidence is to me very unsatisfactory indeed: as it is its weight would seem to go in favor of Flanagan, but as the said Flanagan has red hair, I feel that the ends of justice will be better attained in giving judgement in favor of Jones for half the sum, Flanagan paying the costs."

I am glad before closing this paper to be able to agree in the views and opinions of Mr. Harvey on one point, at all events, namely the important subject of vital statistics. Nothing can be more correct than the statement that recording marriages, births and deaths cannot be done, even with approximate accuracy, in the taking of a Census. This is essentially a matter of day to day registration. The Catholic population of the Province of Quebec is possessed of such registration, from the earliest time of the colony, and a more complete, useful and interesting record can hardly be imagined. Apart from its social utility, I would be inclined to say necessity, it constitutes an important and especially attractive statistical page, not only as regards Canada, but also as concerning the science itself, as being the only record in existence which goes back without interruption and in all its details for two centuries and a half, giving the entire family history of a whole population from its very first origin.

The immense statistical labor, as compared with the small force employed at it, which has been quietly but incessantly carried on in the Department of Agriculture since 1864, is now nearly completed. From the long list of the yearly registration of the movements of the Catholic population of the Province of Quebec, (to which are added the abstracts of all the Censuses ever taken in the four Provinces) we gather that the total number of Catholic marriages since the time of Champlain (1608) to the year 1870 inclusive, has been 373,146, that the total number of births has been 2,244,317 and that the total number of deaths has been 1,060,760. This shows a grand total of excess of births over the number of deaths amounting to 1,183,557, including both the French Can-

adian, the English speaking and other Catholics of the Province of Quebec.

If there had been no Emigration from Quebec at any time, the Catholic population of that Province would have been at the end of 1870 (the Census year) 1,183,557, plus a number equal to the grand total figure of the Catholic immigration from the beginning.

But there was a comparatively considerable Catholic emigration from Quebec to Louisiana, Michigan, other parts in the west and elsewhere, during the time of the French domination and since the cession of Canada to England. That Catholic Emigration from Quebec went on, at an increasing rate, from year to year, since the years 1837 and 1838, till the very end of the decenniad 1860-70, at which time it seems to have entered in a period of some decrease.

By making use from the beginning of the births and deaths tables already mentioned, and of the figures representing, from time to time, the number of Catholic immigrants arrived in Quebec, the deficit indicated, from year to year, from the grand result of the excess of births over deaths, plus the immigration, would represent the actual number of emigrants who have left the country; to which the natural increase of the said Emigration abroad must be found and added to make up the grand total lost from both sources. The numbers to be got by comparative calculation, the errors incident to the recording of all statistics and the small amount of increase or deficit arising from other causes would not materially alter the result, the possible maximum of error being insignificant as compared with the large and exactly ascertained figures. I have just written so much to show what

an inside view of the movements of our people may be obtained by these records, the study of which explains the large deficit which of late years has taken place in the increase of our Quebec population. This argues the accuracy of the Census, inasmuch as the result of deficit, added to the Census figures, reaches as near as can be the former normal rate of increase. I am not of course now at liberty to anticipate the publication of the details.

If the results of the most carefully taken Census ever attempted in Canada, logically supported by the notorious facts of coincident events concerning the movements of our population, and sustained by the records of the past, cannot obtain credence at this moment, they will in time to come.

The triumph of truth over delusion, popular infatuation and local prejudices, if retarded, cannot be for ever prevented.

As a last word, may I be allowed to remark that it matters very little whether returns of a Census are published a few months sooner or later, but the essential point is, on the contrary, that time should be taken to have them carefully prepared and made as accurate as possible. Statistics are to last for ever, and, therefore, ought to be a work of patience and care not to be compromised by undue haste. Very few men appreciate the amount of labor necessary to complete work of this kind; Mr. Harvey does appreciate it, in a friendly and gentlemanly manner and I thank him for that. It is a common complaint in Europe that the harrassment, to which official statisticians are subjected from the craving for news, is one of the most fatal causes that retards the progress of the science and endangers the results of statistical labours.

J. C. TACHE.